

1.6  
KM 3/19/93

URS CONSULTANTS, INC.

MEMORANDUM

62760.05.20.314  
15.b1

TO: Ms. Monica Rolluda, HW-114, U.S. EPA Region 10

FROM: Ms. Kara Steward, URS Consultants, Inc.

DATE: March 19, 1993

SUBJECT: Avery Railroad Dump and Roundhouse HRS Memorandum  
CERCLIS No. IDD984666313

REF: Contract No. 68-W9-0054  
Work Assignment No. 54-17-0JZZ

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A preliminary Hazard Ranking System (HRS) score was computed for the Avery Railroad Dump and Roundhouse site based on information gathered during this site investigation (SI). The score was determined in accordance with the HRS Final Rule (40 CFR Part 300). A preliminary score of 4.47 was calculated for the Avery Railroad Dump and Roundhouse site. Site information collected is provided in the SI report. Assumptions used in the absence of site information are described in this memorandum.

**Waste Characteristics**

- One source was identified at this site: site soils. Activities at the site were not observed to be contained nor were they reported to have been historically contained (i.e., liners, spill containment basins, etc.)
- The site soils source was defined as the surface area of the entire site, 7 acres (7 acres \* 43,500 square feet/acre = 304,500 square feet). As a worst case, site soils were assumed to contain 16 analytes detected at significant concentrations, from the SI sampling results, in site subsurface soil samples (SS03-2 results were used for VOC and semivolatile concentrations and SS06-2 data were used for inorganic and PCB concentrations).
- The oily seep source observed along the St. Joe River bank was excluded from this HRS calculation. The source of the seep was assumed to be the former railroad fuel tank and ancillary piping. Petroleum products are excluded from consideration under CERCLA.



### **Likelihood of Release**

- Based on observations during URS' site visits and as noted from previous documents, no containment structures are assumed to have existed at this site. The site soil source was assigned containment values of 10 (the maximum) for all pathways.
- Observed releases were established for the groundwater, surface water, and soil exposure pathways based on the criteria presented in HRS Table 2-5.

Analytes detected in the on-site monitoring well (WHC01) established the observed release to groundwater in the perched aquifer. No attributable contaminants were detected in the samples collected from the local residential wells.

Significant concentration of contaminants in soil samples collected from the site established the observed release in the soil exposure pathway.

### **Targets**

- The on-site residential population is one year-round resident exposed to a Level I contamination. For worst case, 20 temporary residents are reported to have used this site for living quarters. The addition of 20 on-site residents to the HRS calculation increased the score to 16.05.

### **Groundwater Pathway**

- The unconfined aquifer received a Level I concentration due to the contaminants detected in the nearest well, on-site monitoring well HC-3 (sample WHC01).
- The lower confined aquifer (Belt Formation Shales) was assumed to be interconnected with the upper-unconfined aquifer. The 13 foot layer of confining shale over this aquifer was assumed to have a hydraulic conductivity of  $1E-8$  based on HRS Table 3-6.
- The perched groundwater is assumed to be providing the mode of transport for the contaminants detected at significant concentrations in the on-site monitoring well (sample WHC01) to enter the river.

### **Surface Water Pathway**

- The St. Joe River flows along the southern border of the site. The probable point of entry to the surface water is assumed to be 0 feet.
- The drainage area is assumed to be less than 50 acres, which includes the entire site, 7 acres, and part of the hillside upgradient of the site. Culverts were observed to divert the runoff from the hillside under the St. Joe River Road onto the site.
- The soil group designation for site soils was assumed to be medium texture soils or group B (HRS Table 4-4) based on professional judgement.
- The angle theta was determined to be 190 degrees.
- The State of Idaho designation of the St. Joe River as a "Special Resource Water" was assumed to equate to a Sensitive Environment Rating Value of 25 from HRS Table 4-23.

### **Soil Pathway**

- The residential population of 1 was assigned to this site.
- No resource use or terrestrial sensitive environments were known to exist on this site.

### **Air Pathway**

- A Thornthwaite particulate migration potential factor (P-E Index) value of 11 was assigned for this site.

~~CONFIDENTIAL - PREDECISIONAL~~

OK for release  
MR 4/15/93

PREscore 1.0 - PRESCORE.TCL File 12/23/91  
NPL Characteristics Data Collection Form  
Avery Railroad Dump and Roundhouse - 03/11/93

PAGE: 1

Record Information

1. Site Name: Avery Railroad Dump and Roundhouse  
(as entered in CERCLIS)
2. Site CERCLIS Number: IDD984666313
3. Site Reviewer: K. Steward
4. Date: 03/11/93
5. Site Location: Avery/Shoshone, Idaho  
(City/County,State)
6. Congressional District:
7. Site Coordinates: Single  
Latitude: 47°12'31.6" Longitude: 115°49'15.0"

Site Description

1. Setting: Rural
2. Current Owner: Private - Industrial
3. Current Site Status: Inactive
4. Years of Operation: Active Site , from and to dates: 1909-1977
5. How Initially Identified: State/Local Program
6. Entity Responsible for Waste Generation:
  - Other - Railroad Maintenance
7. Site Activities/Waste Deposition:
  - Surface Impoundment
  - Waste Piles
  - Drum/Container Storage
  - Illegal Dumping
  - Tanks - Above Ground
  - Tanks - Below Ground
  - Airborne Release/Incineration

Waste Description

8. Wastes Deposited or Detected Onsite:

- Organic Chemicals
- Inorganic Chemicals
- Solvents
- Metals
- Oily Waste
- Lead
- PCBs

Response Actions

9. Response/Removal Actions:

RCRA Information

10. For All Active Facilities, RCRA Site Status:

- Not Applicable

Demographic Information

11. Workers Present Onsite: Yes

12. Distance to Nearest Non-Worker Individual: Onsite

13. Residential Population Within 1 Mile: 48.0

14. Residential Population Within 4 Miles: 185.0

Water Use Information

15. Local Drinking Water Supply Source:

- Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source: 185.0

17. Drinking Water Supply System Type for Local Drinking  
Water Supply Sources:

- Private

18. Surface Water Adjacent to/Draining Site:

- Contaminated River

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Latitude: 47°12'31.6"

Longitude: 115°49'15.0"

	Score
Ground Water Migration Pathway Score (Sgw)	4.32
Surface Water Migration Pathway Score (Ssw)	0.01
Soil Exposure Pathway Score (Ss)	7.81
Air Migration Pathway Score (Sa)	0.68

Site Score	4.47
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NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Belt Form Shales		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	5
2e. Potential to Release (lines 2a(2b+2c+2d))	500	160
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+04
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	18
Targets		
7. Nearest Well	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	1.10E+01
8d. Population (lines 8a+8b+8c)	**	1.10E+01
9. Resources	5	0.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	3.10E+01
12. Targets (including overlaying aquifers)	**	3.60E+01
13. Aquifer Score	100	4.32
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	4.32

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.



SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	0
2c. Distance to Surface Water	25	25
2d. Potential to Release by Overland Flow [(lines 2a(2b+2c))]	500	250
3. Potential to Release by Flood		
3a. Containment (Flood)	10	10
3b. Flood Frequency	50	25
3c. Potential to Release by Flood (lines 3a x 3b)	500	250
4. Potential to Release (lines 2d+3c)	500	500
5. Likelihood of Release	550	500
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	10
8. Waste Characteristics	100	18
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	0.00E+00
12. Targets (lines 9+10d+11)	**	0.00E+00
13. DRINKING WATER THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.  
 \*\* Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	500
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	5.00E+08
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	1000	180
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	3.10E-03
19d. Population (lines 19a+19b+19c)	**	3.10E-03
20. Targets (lines 18+19d)	**	3.10E-03
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

\* Maximum value applies to waste characteristics category.  
 \*\* Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	500
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E+08
24. Hazardous Waste Quantity	*	10
25. Waste Characteristics	1000	180
Targets.		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	2.50E-03
26d. Sensitive Environments (lines 26a+26b+26c)	**	2.50E-03
27. Targets (line 26d)	**	2.50E-03
28. ENVIRONMENTAL THREAT SCORE	60	0.00
29. WATERSHED SCORE	100	0.01
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	0.01

\* Maximum value applies to waste characteristics category.  
 \*\* Maximum value not applicable.

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	5.00E+01
6. Resident Population		
6a. Level I Concentrations	**	1.00E+01
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	1.00E+01
7. Workers	15	5.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	6.50E+01
11. RESIDENT POPULATION THREAT SCORE	**	6.44E+05

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

\*\*\* No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	5.00E+01
13. Area of Contamination	100	6.00E+01
14. Likelihood of Exposure	500	1.25E+02
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	0.00E+00
19. Population Within 1 Mile	**	2.00E-01
20. Targets (lines 18+19)	**	2.00E-01
21. NEARBY POPULATION THREAT SCORE	**	4.50E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	7.81

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	360
2b. Particulate Potential to Release	500	330
2c. Potential to Release	500	360
3. Likelihood of Release	550	360
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+02
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	6
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	1.00E+00
8d. Population (lines 8a+8b+8c)	**	1.00E+00
9. Resources	5	5.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	0.00E+00
10c. Sens. Environments(lines 10a+10b)	***	0.00E+00
11. Targets (lines 7+8d+9+10c)	**	2.60E+01
AIR MIGRATION PATHWAY SCORE (Sa)	100	6.81E-01

\* Maximum value applies to waste characteristics category.

\*\* Maximum value not applicable.

\*\*\* No specific maximum value applies, see HRS for details.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Avery site

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		Avery site	
b. Source Type		Contaminated Soil	
c. Secondary Source Type		N.A.	
d. Source Volume (yd <sup>3</sup> )	Source Area (ft <sup>2</sup> )	0.00	304500.00
e. Source Volume/Area Value		8.96E+00	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		8.96E+00	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Acenaphthene	< 2	NO	8.7E+00	ppm
Anthracene	< 2	NO	2.6E+00	ppm
Barium	< 2	NO	3.0E+02	ppm
Benz(a)anthracene	< 2	NO	2.2E+00	ppm
Bis (2-ethylhexyl) phthalate	< 2	NO	6.1E+00	ppm
Chrysene	< 2	NO	2.5E+00	ppm
Copper	< 2	NO	3.8E+02	ppm
Ethyl benzene	< 2	NO	6.5E-02	ppm
Fluorene	< 2	NO	1.1E+01	ppm
Lead	< 2	NO	5.3E+02	ppm
Naphthalene	< 2	NO	6.0E+00	ppm
PCBs	< 2	NO	8.7E+01	ppm
Phenanthrene	< 2	NO	3.1E+01	ppm
Pyrene	< 2	NO	5.9E+00	ppm
Toluene	< 2	NO	4.9E-02	ppm
Xylene, o-	< 2	NO	1.6E+00	ppm



Documentation for Source Hazardous Substances:

Significant data reported for site soil samples collected 8/26/92,  
significance determined based on criteria in HRS Table 2-5.

Reference:

Documentation for Source Area:

Entire site considered source, 7 acres \* 4.35E+4 sq. ft./acre =  
304,500 sq. ft.

Reference:

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No. Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1 Avery site	GW-SW-SE-A	8.96E+00	0.00E+00	8.96E+00

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values	HWQVs*	WCVs**
Ground Water	Toxicity/Mobility 1.00E+04	10	18
SW: Overland Flow, DW	Tox./Persistence 1.00E+04	10	18
SW: Overland Flow, HFC	Tox./Persis./Bioacc. 5.00E+08	10	180
SW: Overland Flow, Env	Etox./Persis./Bioacc. 5.00E+08	10	180
SW: GW to SW, DW	Tox./Persistence 1.00E+04	10	18
SW: GW to SW, HFC	Tox./Persis./Bioacc. 5.00E+08	10	180
SW: GW to SW, Env	Etox./Persis./Bioacc. 5.00E+06	10	56
Soil Exposure: Resident	Toxicity 1.00E+04	10	18
Soil Exposure: Nearby	Toxicity 1.00E+04	10	18
Air	Toxicity/Mobility 2.00E+02	10	6

\* Hazardous Waste Quantity Factor Values

\*\* Waste Characteristics Factor Category Values

Note: SW = Surface Water  
GW = Ground Water  
DW = Drinking Water Threat  
HFC = Human Food Chain Threat  
Env = Environmental Threat

No. Aquifer ID	Type	Overlaying No.	Inter- Connected with	Likelihood of Release	Targets
1 Unconfined shallow	Non K	0	0	550	5.00E+00
2 Belt Form Shales	Non K	1	1	550	3.60E+01

#### Containment

No.	Source ID	HWQ Value	Containment Value
1	Avery site	8.96E+00	10

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Containment Factor	10
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#### Documentation for Ground Water Containment, Source Avery site:

Groundwater containment not present on this site, entire site is considered the source.

Reference: 1, 2

#### Net Precipitation

Net Precipitation (inches)	22.80
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#### Documentation for Net Precipitation:

Calculated in Appendix B of SI report

Reference: 4

Aquifer: Unconfined shallow

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination		
1	WHC01 (HC-3)	Monitoring Well	0.000	Level I		
Well						
No.	Hazardous Substance	Concent.	MCL	Cancer	RFD	Units
1	Acenaphthene	5.4E+01	0.0E+00	0.0E+00	2.1E+03	ppb
1	Arsenic	1.0E+02	5.0E+01	2.0E-02	1.1E+01	ppb
1	Barium	2.7E+02	1.0E+03	0.0E+00	2.5E+03	ppb
1	Benzene	2.0E+01	5.0E+00	1.2E+00	0.0E+00	ppb
1	Chromium	2.9E+01	5.0E+01	0.0E+00	1.8E+02	ppb
1	Cobalt	4.9E+01	0.0E+00	0.0E+00	0.0E+00	ppb
1	Copper	1.7E+02	0.0E+00	0.0E+00	1.3E+03	ppb
1	Fluorene	1.5E+02	0.0E+00	0.0E+00	1.4E+03	ppb
1	Lead	5.4E+01	5.0E+01	0.0E+00	0.0E+00	ppb
1	Manganese	4.0E+03	0.0E+00	0.0E+00	3.5E+03	ppb
1	Naphthalene	8.7E+01	0.0E+00	0.0E+00	1.4E+02	ppb
1	Nickel	6.9E+01	0.0E+00	0.0E+00	7.0E+02	ppb
1	Phenanthrene	2.3E+02	0.0E+00	0.0E+00	0.0E+00	ppb
1	Silver	1.4E+01	5.0E+01	0.0E+00	1.1E+02	ppb

Observed Release Factor 550

Documentation for Well WHC01 (HC-3):

Significant data from the URS SI sampling, sample number WCH01 collected from onsite monitoring well HC-3. Sample collected on 8/26/92. Significant data determined according to criteria in HRS Table 2-5.

Reference: 4

PREscore 1.0 - PRESCORE.TCL File 12/23/91      PAGE: 16  
GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Unconfined shallow AQUIFER  
Avery Railroad Dump and Roundhouse - 03/11/93

POTENTIAL TO RELEASE

Containment

Containment Factor 10

Net Precipitation

Net Precipitation Factor 6

Depth to Aquifer

A. Depth of Hazardous Substances 9.00 feet

Documentation for Depth of Hazardous Substances:

Depth to contaminated oil layer on groundwater identified during SI sampling to occur at 9 feet in well HC-3

Reference: 3

B. Depth to Aquifer from Surface 12.00 feet

Documentation for Depth to Aquifer from Surface :

Depth to unconfined aquifer under site found to be 12 to 16 feet bgs during Hart-Crowser monitoring well installation. Depth to oily layer in HC-3 was found to be 9 feet during SI sampling

Reference: 2, 3

C. Depth to Aquifer (B - A) 3.00 feet

Depth to Aquifer Factor 5  
Travel Time  
Are All Layers Karst? NO  
Thickness of Layer(s) with Lowest Conductivity 0.00 feet

Documentation for Thickness of Layers with Lowest Conductivity:  
Shallow water under the site was determined to be unconfined.  
Reference: 2

Hydraulic Conductivity (cm/sec) 0.0E-00

Documentation for Hydraulic Conductivity:  
No hydraulic conductivity assigned due to unconfined water under site.  
Reference: 2

Travel Time Factor 35  
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Potential to Release Factor	460
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Aquifer: Belt Form Shales

Type of Aquifer: Non Karst

Overlaying Aquifer: 1

Interconnected with: 1

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination
- N/A and/or data not specified				

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Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor 10

Net Precipitation

Net Precipitation Factor 6

Depth to Aquifer

A. Depth of Hazardous Substances 9.00 feet

Documentation for Depth of Hazardous Substances:

During URS Sampling, oily layer was encountered at 9 feet  
deep in monitoring well HC-3.

Reference: 3

B. Depth to Aquifer from Surface 23.00 feet

Documentation for Depth to Aquifer from Surface :

Based on well logs for the Avery area, depth to water indicated at  
23 (Packer well in Section 15) and 24 feet (BNR well in Section 17).  
Static water level indicated at 20 and 10 feet, respectively.

Reference: 2

C. Depth to Aquifer (B - A) 14.00 feet

Depth to Aquifer Factor 5

Travel Time

Are All Layers Karst? NO

Thickness of Layer(s) with Lowest Conductivity 13.00 feet

Documentation for Thickness of Layers with Lowest Conductivity:

Well logs for BNR and Packer indicated a 23 or 24 foot confining layer, (23 feet - first 10 feet from ground surface = 13 foot confining layer)

Reference: 2

Hydraulic Conductivity (cm/sec) 1.0E-08

Documentation for Hydraulic Conductivity:

Hydraulic conductivity of the 13 foot layer of shale (Packer well log and Potlatch well log show layers of shale, BNR well log layer definition unreadable) assumed from HRS Table 3-6 to equal 1E-8 cm/sec for shale materials

Reference: 2

Travel Time Factor 5

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Potential to Release Factor	160
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Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
Acenaphthene	10	2.00E-03	2.00E-02
Anthracene	10	2.00E-07	2.00E-06
Barium	10000	1.00E-02	1.00E+02
Benz(a)anthracene	1000	2.00E-09	2.00E-06
Bis (2-ethylhexyl) phthalate	100	2.00E-07	2.00E-05
Chrysene	100	2.00E-09	2.00E-07
Copper	100	1.00E-02	1.00E+00
Ethyl benzene	10	1.00E-02	1.00E-01
Fluorene	100	2.00E-03	2.00E-01
Lead	10000	2.00E-05	2.00E-01
Naphthalene	1000	2.00E-03	2.00E+00
PCBs	10000	2.00E-09	2.00E-05
Phenanthrene	1	2.00E-05	2.00E-05
Pyrene	100	2.00E-09	2.00E-07
Toluene	10	1.00E-02	1.00E-01
Xylene, o-	10	1.00E-02	1.00E-01

Hazardous Substances Found in an Observed Release

Well No.	Observed Release Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
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- N/A and/or data not specified

Toxicity/Mobility Value from Source Hazardous Substances:	1.00E+02
Toxicity/Mobility Value from Observed Release Hazardous Substances:	1.00E+04
Toxicity/Mobility Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination Population
-----	---------	-------------	---------------------	--------------------------------------

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	0.0	0.00E+00
> 1/4 to 1/2	0.0	0.00E+00
> 1/2 to 1	0.0	0.00E+00
> 1 to 2	0.0	0.00E+00
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 0.000

Nearest Well

Level of Contamination: N.A.

Nearest Well Factor: 0.00E+00

Resources

Resource Use: YES

Resource Factor: 5.00E+00

Wellhead Protection Area

No wellhead protection area

Wellhead Protection Area Factor: 0.00E+00



Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination Population
-----	---------	-------------	---------------------	--------------------------------------

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	48.0	5.30E+00
> 1/4 to 1/2	50.0	3.30E+00
> 1/2 to 1	75.0	1.70E+00
> 1 to 2	12.0	3.00E-01
> 2 to 3	0.0	0.00E+00
> 3 to 4	0.0	0.00E+00

Potential Contamination Factor: 11.000

Nearest Well

Level of Contamination: Potential  
Distance in miles: 0.00

Nearest Well Factor: 2.00E+01

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Wellhead Protection Area

No wellhead protection area

Wellhead Protection Area Factor: 0.00E+00

PREscore 1.0 - PRESCORE.TCL File 12/23/91  
SURFACE WATER PATHWAY SEGMENT SUMMARY  
Avery Railroad Dump and Roundhouse - 03/11/93

PAGE: 29

No. Segment ID	Segment Type	Water Type	Start Point (mi)	End Point (mi)	Average Flow (cfs)
1 St. Joe River	River	Fresh	0.00	15.00	2408.

Documentation for segment: St. Joe River:

Flow data from PA = 2408 cfs

Reference: 2

OBSERVED RELEASE

No. Sample ID	Sample Type	Distance (miles)	Level of Contamination		
			DW	HFC	Env

- N/A and/or data not specified

=====

Observed Release Factor 0

POTENTIAL TO RELEASE

Potential to Release by Overland Flow

Containment

No. Source ID	HWQ Value	Containment Value
1 Avery site	8.96E+00	10

=====

Containment Factor: 10

Documentation for Overland Flow Containment, Source Avery site:

No surface water containment on site.

Reference: 1, 2

Distance to Surface Water

Distance to Surface Water: 0.0 feet  
Distance to Surface Water Factor: 25

Documentation for Distance to Surface Water:

Oily seep was observed during site site sampling to be leaching the oily material onto the riverbank and into the river, this was during a low flow season (August), it may be assumed that during high flow seasons, the oily seep is under water and releasing directly to the river.

Reference: 3

Runoff

A. Drainage Area: 49.0 acres  
B. 2-year, 24-hour Rainfall: 1.8 inches  
C. Soil Group: B  
Medium-textured soils with moderate infiltration rates  
Runoff Factor: 0

=====  
Potential to Release by Overland Flow Factor: 250

Potential to Release by Flood

No. Source ID	HWA Value	Flood Containment Value	Flood Frequency Value	Potential to Release by Flood
1 Avery site	8.96E+00	10	25	250

=====

Potential to Release by Flood Factor: 250

Documentation for Flood Containment, Source Avery site:

No containment against flood present.

Reference: 1,3

Documentation for Flood Frequency, Source Avery site:

No flood maps available for this area, the site was assumed to be in the 100-year flood plain due to anecdotal information in the PA (no recollection by area residents of the site flooded)

Reference: 2

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
Acenaphthene	10	4.00E-01	4.00E+00
Anthracene	10	4.00E-01	4.00E+00
Barium	10000	1.00E+00	1.00E+04
Benz(a)anthracene	1000	1.00E+00	1.00E+03
Bis (2-ethylhexyl) phthalate	100	1.00E+00	1.00E+02
Chrysene	0	1.00E+00	0.00E+00
Copper	100	1.00E+00	1.00E+02
Ethyl benzene	10	4.00E-01	4.00E+00
Fluorene	100	1.00E+00	1.00E+02
Lead	10000	1.00E+00	1.00E+04
Naphthalene	1000	4.00E-01	4.00E+02
PCBs	10000	1.00E+00	1.00E+04
Phenanthrene	1	4.00E-01	4.00E-01
Pyrene	100	1.00E+00	1.00E+02
Toluene	10	4.00E-01	4.00E+00
Xylene, o-	10	4.00E-01	4.00E+00



Hazardous Substances Found in an Observed Release

Sample Observed Release No.	Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
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- N/A and/or data not specified

Toxicity/Persistence Value from Source Hazardous Substances:	1.00E+04
Toxicity/Persistence Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

=====

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

Level II Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

=====

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

Potential Contamination

Intake ID	Average Annual Flow (cfs)	Population Served
- N/A and/or data not specified		

Type of Surface Water Body	Total Population	Dilution-Weighted Population
- N/A and/or data not specified		

=====

Dilution-Weighted Population Served  
by Potentially Contaminated Intakes: 0.0

Potential Contamination Factor: 0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources

Resource Use: NO

Resource Value: 0.00E+00

Documentation for Resources:

No resources identified, as specified in HRS.

Reference: 3

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value	Persistence Value	Bio- accum. Value	Toxicity/ Persistence/ Bioaccum. Value
Acenaphthene	10	4.00E-01	5.00E+02	2.00E+03
Anthracene	10	4.00E-01	5.00E+03	2.00E+04
Arsenic	10000	1.00E+00	5.00E+00	5.00E+04
Barium	10000	1.00E+00	5.00E-01	5.00E+03
Benz(a)anthracene	1000	1.00E+00	5.00E+04	5.00E+07
Benzene	100	4.00E-01	5.00E+03	2.00E+05
Bis (2-ethylhexyl) phthalate	100	1.00E+00	5.00E+03	5.00E+05
Chromium	10000	1.00E+00	5.00E+00	5.00E+04
Chrysene	0	1.00E+00	5.00E+02	0.00E+00
Cobalt	100	1.00E+00	5.00E+03	5.00E+05
Copper	100	1.00E+00	5.00E+04	5.00E+06
Ethyl benzene	10	4.00E-01	5.00E+01	2.00E+02
Fluorene	100	1.00E+00	5.00E+03	5.00E+05
Lead	10000	1.00E+00	5.00E+01	5.00E+05
Manganese	10000	1.00E+00	5.00E+04	5.00E+08
Naphthalene	1000	4.00E-01	5.00E+02	2.00E+05
Nickel	10000	1.00E+00	5.00E-01	5.00E+03
PCBs	10000	1.00E+00	5.00E+04	5.00E+08
Phenanthrene	1	4.00E-01	5.00E+01	2.00E+01
Pyrene	100	1.00E+00	5.00E+01	5.00E+03
Silver	1000	1.00E+00	5.00E+01	5.00E+04
Toluene	10	4.00E-01	5.00E+01	2.00E+02
Xylene, o-	10	4.00E-01	5.00E+01	2.00E+02

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Toxicity Value	Persistence Value	Bio- accum. Value	Toxicity/ Persistence/ Bioaccum. Value
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- N/A and/or data not specified



Toxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:	5.00E+08
Toxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence/Bioaccumulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	180

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

=====

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
---------	-------------------------------	--------------------------------------

- N/A and/or data not specified

=====

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Fishery	Annual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
1 St. Joe River	10650.0	River	2408	31.0	1.00E-03	3.10E-02

Sum of (Pi\*Di): 3.10E-02

Potential Human Food Chain Contamination Factor: 3.10E-03

Documentation for St. Joe River Fishery:

Fishery production for the St. Joe River, data from the PA,  
 estimated 710 lbs of fish/mile \* 15 miles = 10650 lbs fish per year

Reference: 2

Food Chain Individual

Location of Nearest Fishery: St. Joe River  
 Distance from the Probable Point of Entry: 0.00 miles  
 Type of Surface Water Body: River  
 Dilution Weight: 0.0010000  
 Level of Contamination: Potential

Food Chain Individual Factor: 0.00

Documentation for St. Joe River:

Flow data from PA = 2408 cfs

Reference: 2

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Eco- toxicity Value	Persistence Value	Bio- accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Acenaphthene	10000	4.00E-01	5.00E+02	2.00E+06
Anthracene	10000	4.00E-01	5.00E+03	2.00E+07
Arsenic	10	1.00E+00	5.00E+01	5.00E+02
Barium	1	1.00E+00	5.00E-01	5.00E-01
Benz(a)anthracene	10000	1.00E+00	5.00E+04	5.00E+08
Benzene	10000	4.00E-01	5.00E+02	2.00E+06
Bis (2-ethylhexyl) phthalate	1000	1.00E+00	5.00E+04	5.00E+07
Chromium	10000	1.00E+00	5.00E+00	5.00E+04
Chrysene	0	1.00E+00	5.00E+02	0.00E+00
Cobalt	0	1.00E+00	5.00E+03	0.00E+00
Copper	100	1.00E+00	5.00E+04	5.00E+06
Ethyl benzene	100	4.00E-01	5.00E+01	2.00E+03
Fluorene	1000	1.00E+00	5.00E+03	5.00E+06
Lead	1000	1.00E+00	5.00E+03	5.00E+06
Manganese	0	1.00E+00	5.00E+04	0.00E+00
Naphthalene	1000	4.00E-01	5.00E+02	2.00E+05
Nickel	10	1.00E+00	5.00E+02	5.00E+03
PCBs	10000	1.00E+00	5.00E+04	5.00E+08
Phenanthrene	1000	4.00E-01	5.00E+03	2.00E+06
Pyrene	0	1.00E+00	5.00E+01	0.00E+00
Silver	10000	1.00E+00	5.00E+01	5.00E+05
Toluene	100	4.00E-01	5.00E+01	2.00E+03
Xylene, o-	100	4.00E-01	5.00E+01	2.00E+03

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Eco- toxicity Value	Persistence Value	Bio- accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
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- N/A and/or data not specified

Ecotoxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:	5.00E+08
Ecotoxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	0.00E+00
Ecotoxicity/Persistence/Bioaccumulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	180



Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
-----------------------	---	-----------------------------------

- N/A and/or data not specified

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
---------	--	------------------------------

- N/A and/or data not specified

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

=====

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
-----------------------	---	-----------------------------------

- N/A and/or data not specified

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Sum of Sensitive Environments Values:	0
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Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
---------	--	------------------------------

- N/A and/or data not specified

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Total Wetlands Frontage:	0.00 Miles	Total Wetlands Value:	0
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=====

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Sensitive Environments

Type of Surface Water Body	Sensitive Environment	Sensitive Environment Value
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Wetlands

Type of Surface Water Body	Sensitive Environment	Wetlands Frontage	Wetlands Value
-------------------------------	-----------------------	----------------------	-------------------

- N/A and/or data not specified

Type of Surface Water Body	Sum of			Dj(Wj+Sj)
	Sum of Sens. Environment Values(Sj)	Wetland Frontage Values(Wj)	Dilution Weight (Dj)	

- N/A and/or data not specified

Sum of Dj(Wj+Sj): 0.00E+00  
 Sum of Dj(Wj+Sj)/10: 0.00E+00

=====.  
 Potential Contamination Sensitive Environment Factor: 2.50E-03

Likelihood of Exposure

No. Source ID Level of Contamination

1 Avery site Level 1

Likelihood of Exposure Factor: 550

Documentation for Area of Contamination, Source Avery site:

Assumed to be entire site soils.

Reference: 1,3

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	Acenaphthene	< 2	8.7E+00	0.0E+00	3.5E+04	ppm
1	Anthracene	< 2	2.6E+00	0.0E+00	1.7E+05	ppm
1	Barium	< 2	3.0E+02	0.0E+00	4.1E+04	ppm
1	Benz(a)anthracene	< 2	2.2E+00	0.0E+00	0.0E+00	ppm
1	Bis (2-ethylhexyl) phthalate	< 2	6.1E+00	4.2E+01	1.2E+04	ppm
1	Chrysene	< 2	2.5E+00	0.0E+00	0.0E+00	ppm
1	Copper	< 2	3.8E+02	0.0E+00	2.2E+04	ppm
1	Ethyl benzene	< 2	6.5E-02	0.0E+00	5.8E+04	ppm
1	Fluorene	< 2	1.1E+01	0.0E+00	2.3E+04	ppm
1	Lead	< 2	5.3E+02	0.0E+00	0.0E+00	ppm
1	Naphthalene	< 2	6.0E+00	0.0E+00	2.3E+03	ppm
1	PCBs	< 2	8.7E+01	7.6E-02	0.0E+00	ppm
1	Phenanthrene	< 2	3.1E+01	0.0E+00	0.0E+00	ppm
1	Pyrene	< 2	5.9E+00	0.0E+00	1.7E+04	ppm
1	Toluene	< 2	4.9E-02	0.0E+00	1.2E+05	ppm
1	Xylene, o-	< 2	1.6E+00	0.0E+00	1.2E+06	ppm

Documentation for Source Avery site, Contaminants:

Significant data reported for site soil samples collected 8/26/92,  
 significance determined based on criteria in HRS Table 2-5.

Reference:

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value
Acenaphthene	10
Anthracene	10
Barium	10000
Benz(a)anthracene	1000
Bis (2-ethylhexyl) phthalate	100
Chrysene	0
Copper	100
Ethyl benzene	10
Fluorene	100
Lead	10000
Naphthalene	1000
PCBs	10000
Phenanthrene	1
Pyrene	100
Toluene	10
Xylene, o-	10

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18



Targets

Level I Population: 1.0 Value: 10.00

Documentation for Level I Population:

One resident is reported to live on the site year-round.

Reference: 1,2

Level II Population: 0.0 Value: 0.00

Workers: 20.0 Value: 5.00

Documentation for Workers:

Assumed maximum number of site workers reported at this site since  
 it was purchased by Potlatch (20 people)

Reference: 1,3

Resident Individual: Level I Value: 50.00

Resources: NO Value: 0.00

Terrestrial Sensitive Environment Value

- N/A and/or data not specified

=====

Terrestrial Sensitive Environments Factor: 0.00

Likelihood of Exposure

No. Source ID	Level of Contamination	Attractiveness/ Accessibility	Area of Contam. (sq. feet)
1 Avery site	Level I	50	304500
Highest Attractiveness/Accessibility Value:			50
Sum of Eligible Areas Of Contamination (sq. feet):			304500
Area of Contamination Value:			60

Likelihood of Exposure Factor Category: 125

Documentation for Attractiveness/Accessibility, Source Avery site:

No soil containment on site, no fence around site, observed area youths crossing site for access to the river and wildlife on-site (mule deer) during site sampling

Reference: 1,2,3

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	Acenaphthene	< 2	8.7E+00	0.0E+00	3.5E+04	ppm
1	Anthracene	< 2	2.6E+00	0.0E+00	1.7E+05	ppm
1	Barium	< 2	3.0E+02	0.0E+00	4.1E+04	ppm
1	Benz(a)anthracene	< 2	2.2E+00	0.0E+00	0.0E+00	ppm
1	Bis (2-ethylhexyl) phthalate	< 2	6.1E+00	4.2E+01	1.2E+04	ppm
1	Chrysene	< 2	2.5E+00	0.0E+00	0.0E+00	ppm
1	Copper	< 2	3.8E+02	0.0E+00	2.2E+04	ppm
1	Ethyl benzene	< 2	6.5E-02	0.0E+00	5.8E+04	ppm
1	Fluorene	< 2	1.1E+01	0.0E+00	2.3E+04	ppm
1	Lead	< 2	5.3E+02	0.0E+00	0.0E+00	ppm
1	Naphthalene	< 2	6.0E+00	0.0E+00	2.3E+03	ppm
1	PCBs	< 2	8.7E+01	7.6E-02	0.0E+00	ppm
1	Phenanthrene	< 2	3.1E+01	0.0E+00	0.0E+00	ppm
1	Pyrene	< 2	5.9E+00	0.0E+00	1.7E+04	ppm
1	Toluene	< 2	4.9E-02	0.0E+00	1.2E+05	ppm
1	Xylene, o-	< 2	1.6E+00	0.0E+00	1.2E+06	ppm

Documentation for Source Avery site, Contaminants:

Significant data reported for site soil samples collected 8/26/92,  
significance determined based on criteria in HRS Table 2-5.

Reference:

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value
Acenaphthene	10
Anthracene	10
Barium	10000
Benz(a)anthracene	1000
Bis (2-ethylhexyl) phthalate	100
Chrysene	0
Copper	100
Ethyl benzene	10
Fluorene	100
Lead	10000
Naphthalene	1000
PCBs	10000
Phenanthrene	1
Pyrene	100
Toluene	10
Xylene, o-	10

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

Nearby Individual

Population within 1/4 mile: 47.0

Nearby Individual Value: 0.0

Population Within 1 Mile

Travel Distance Category	Number of People	Value
> 0 to 1/4 mile	47.0	0.1
> 1/4 to 1/2 mile	50.0	0.1
> 1/2 to 1 mile	75.0	0.0
Population Within 1 Mile Factor:		0.2

Documentation for Population > 0 to 1/4 mile Distance Category:

Resident population estimated from groundwater population, excluding the on-site residential population of 1 year-round resident.

Reference: 2

OBSERVED RELEASE

No. Sample ID	Distance (miles)	Level of Contamination
- N/A and/or data not specified		

=====

Observed Release Factor: 0

Gas Migration Potential

GAS POTENTIAL TO RELEASE

Source ID	Source Type	Gas Contain. Value (A)	Gas Source Type Value (B)	Gas Migrtn. Potent. Value (C)	Sum (B+C)	Gas Potential to Rel. Value A(B+C)
Avery site	Contaminated Soil	10	19	17	36	360

Gas Potential to Release Factor: 360

Documentation for Gas Containment, Source Avery site:

No containment for release of gas at this site. Air pathway not considered in PA.

Reference: 1,2,3



Source: Avery site

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
Acenaphthene	11
Anthracene	6
Benz(a)anthracene	6
Bis (2-ethylhexyl) phthalate	6
Chrysene	6
Ethyl benzene	17
Fluorene	11
Naphthalene	11
Phenanthrene	11
Pyrene	6
Toluene	17
Xylene, o-	17

Average of Gas Migration Potential Value for 3 Hazardous Substances: 17.000

=====

Gas Migration Potential Value From Table 6-7: 17

Particulate Migration Potential

PARTICULATE POTENTIAL TO RELEASE

Source ID	Source Type	Partic. Contain.	Partic. Source Value	Partic. Migrtn. Potent. Value	Sum	Partic. Potential to Rel. Value
		Value (A)	Value (B)	Value (C)	(B+C)	A(B+C)
Avery site	Contaminated Soil	10	22	11	33	330

Particulate Potential to Release Factor: 330

Documentation for Particulate Containment, Source Avery site:

No containment for particulates at this site. Air pathway not considered in the PA.

Reference: 1,2,3

Documentation for Particulate Migration Potential:

Determined from Figure 6-2 in HRS.

Reference:

Source: Avery site

Particulate Hazardous Substance

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Acenaphthene  
Anthracene  
Barium  
Benz(a)anthracene  
Bis (2-ethylhexyl) phthalate  
Chrysene  
Copper  
Fluorene  
Lead  
Naphthalene  
PCBs  
Phenanthrene  
Pyrene

Source: 1 Avery site

Source Hazardous Waste Quantity Value: 8.96

Hazardous Substance	Toxicity Value	Gas Mobility Value	Particulate Mobility Value	Toxicity/Mobility Value
Acenaphthene	10	2.00E-01	2.00E-04	2.00E+00
Anthracene	10	2.00E-03	2.00E-04	2.00E-02
Barium	10000	NA	2.00E-04	2.00E+00
Benz(a)anthracene	1000	2.00E-04	2.00E-04	2.00E-01
Bis (2-ethylhexyl) phthalate	100	2.00E-03	2.00E-04	2.00E-01
Chrysene	100	2.00E-04	2.00E-04	2.00E-02
Copper	100	NA	2.00E-04	2.00E-02
Ethyl benzene	10	1.00E+00	NA	1.00E+01
Fluorene	100	2.00E-01	2.00E-04	2.00E+01
Lead	10000	NA	2.00E-04	2.00E+00
Naphthalene	1000	2.00E-01	2.00E-04	2.00E+02
PCBs	10000	NA	2.00E-04	2.00E+00
Phenanthrene	1	2.00E-02	2.00E-04	2.00E-02
Pyrene	100	2.00E-03	2.00E-04	2.00E-01
Toluene	10	1.00E+00	NA	1.00E+01
Xylene, o-	10	1.00E+00	NA	1.00E+01

Hazardous Substances Found in an Observed Release

Sample ID	Observed Release Hazardous Substance	Particulate Toxicity/ Mobility Value	Gas Toxicity/ Mobility Value
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- N/A and/or data not specified

Documentation for Particulate Mobility:

Determined from HRS Figure 6-3

Reference:

Toxicity/Mobility Value from Source Hazardous Substances:	2.00E+02
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	2.00E+02
Sum of Source Hazardous Waste Quantity Values:	8.96E+00
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	6

Actual Contamination

No. Sample ID	Distance (miles)	Level of Contamination
- N/A and/or data not specified		

Potential Contamination

Distance Categories Subject to Potential Contamination	Population	Value
Onsite	1.0	0.4000
> 0 to 1/4 mile	28.0	0.4000
> 1/4 to 1/2 mile	50.0	0.3000
> 1/2 to 1 mile	75.0	0.0900
> 1 to 2 miles	12.0	0.0090
> 2 to 3 miles	0.0	0.0000
> 3 to 4 miles	0.0	0.0000

Potential Contamination Factor: 1.0000

Nearest Individual Factor

Level of Contamination: Potential  
Distance in miles: 0 to 1/8

Nearest Individual Value: 20

Documentation for Nearest Individual:

Nearest individual resides on-site

Reference: 2

Resources

Resource Use: YES

Resource Value: 5



Actual Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Actual Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value
- N/A and/or data not specified		

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Sensitive Environments Actual Contamination Factor: 0.000  
(Sum of Sensitive Environments + Wetlands Values)

Potential Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value	Distance Weight	Weighted Value/10
	0.000	0	1.0000	0.000

Potential Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value	Distance Weight	Weighted Value/10
- N/A and/or data not specified				

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Sensitive Environment Potential Contamination Factor: 0.000

REFERENCES

Avery Railroad Dump and Roundhouse - 03/11/93

1. URS site visit observations.  
Site visit May 5, 1992.
2. Preliminary Assessment  
IDEQ  
1991
3. URS site sampling observations  
August 25, 16 1992
4. URS SI Report